AVOIDED COST ENERGY PRICING REPORT #1 NOVEMBER 20, 1996

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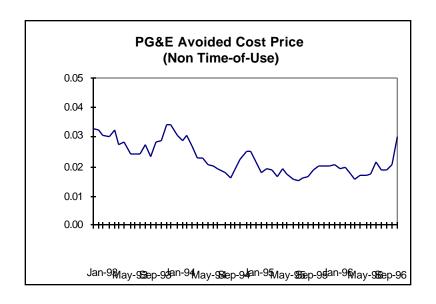
This report is the first in a series focusing on short-run avoided cost prices paid by California utilities to qualifying facilities (QFs). This report and future offerings attempt to report on current QF pricing trends and clarify aspects of changes to the QF pricing formula that may occur in the future.

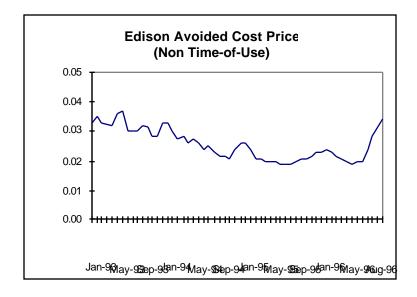
Under the Public Utilities Regulatory Policy Act of 1978 (PURPA), utilities must purchase electricity offered by QFs at the utilities' avoided cost. At this time, the avoided cost is determined by a formula approved by the California Public Utilities Commission. The price is determined using a formula which currently considers system average heat rates and energy prices. AB 1890 adopted a new methodology which will change the way the price is calculated. We have not determined what affect the change will have on California electricity rates or how long the new methodology will apply in the future. It is possible that federal legislation dealing with electric industry restructuring will produce an avoided cost price that is market-based (from the Power Exchange), eliminating the need for an administratively-designed avoided cost formula. It is likely at the state level that the methodology will be superseded when the Power Exchange is agreed to be a source of market-based prices.

Avoided cost energy prices paid by California utilities are at their highest level in many years. On November 12, PG&E and Edison submitted their monthly short-run avoided cost filings to the CPUC. QFs selling energy back to PG&E will receive an average (non time-of-use) energy payment of 3.01 cents per kWh, the highest price paid by the utility since March 1994. The payment is almost 50 percent higher than the previous month.

The story is similar for a QF selling electricity back to Edison. Edison's QF non-time-of-use energy price is 3.4 cents per kWh, the highest price since June 1993. The payment is approximately 30 percent higher than the 2.8 cent price in effect last month. Avoided cost prices since 1993 on a non time-of-use basis for PG&E and Edison are illustrated in the two charts shown below.

The sharp increase in QF energy prices is a direct result of a strong upward trend in natural gas prices. During the past month, the average price of natural gas delivered to PG&E at the California border increased by 79 cents to \$2.39 per MMBtu. Edison deliveries at the California border increased \$1.07 to \$3.01 per MMBtu. The November 11th issue of Natural Gas Week provides the following reasons for the price run-up: 1) low levels of hydroelectric power production, 2) reduced electricity deliveries by the Bonneville Power Administration, 3) strong storage gas injection demand due to relatively low storage inventories, 4) warmer than normal late summer temperatures, and 5) cooler than normal fall temperatures.





This latest run-up in prices has not been seen in this part of the country for several years. Recall that last year, natural gas prices ran up dramatically in the Midwest and Eastern markets during an extended period of cold weather, as natural gas utilities and distributors were caught with inadequate storage inventories. Excess natural gas space heating reached record proportions, leading many distributors to pay penalties up to \$35 per MMBtu to secure supplies. The cold weather did not affect the West, and supply disruptions did not pose a problem.

As the market enters the winter season, it is uncertain if the region has enough storage inventory to meet demand in the event the upstream production is diverted to other markets or simply not available at all. The bottom line: expect this winter's natural gas prices to be generally higher in California than last winter, with much greater volatility. The impact on the electricity rates of "small" consumers (residential, small commercial) should be minimal in the short-term. If prices remain high for an extended period of time, however, expect the utilities to file a request with the California Public Utilities Commission to adjust rates upward.

For those interested in why there is a difference in California border prices for the two utilities, I offer two reasons. The first is a function of assumed interstate pipeline transmission rates. Edison forecasted takes of Southwest U.S. gas includes a non-discounted transmission rate of \$0.40 per MMBtu to account for firm capacity it holds on the El Paso Natural Gas system. While also holding firm capacity on El Paso, PG&E only assumes a discounted rate of \$0.10 per MMBtu, equal to what the utility believes will be the market clearing price for the capacity that month. For Canadian deliveries, the cost of Edison's gas includes a \$0.38 per MMBtu transmission charge for firm capacity on the PG&E portion of the Pacific Gas Transmission (PGT)/PG&E Expansion pipeline. The charge is not included in PG&E's Canadian gas price calculation since it does not utilize the PG&E Expansion for deliveries to customers.¹

Another reason for the difference in price is the method used to calculate the basin gas prices. PG&E's Canadian gas price is based on a published price at Kingsgate, a point at the U.S.-Canadian border connecting Canadian supplies with the PGT system. Edison's however, is based on a formula adopted by the CPUC, essentially a weighted average of all estimated Southwest purchases made by Edison to produce electricity. The difference in price for the November 12 - December 11 period is \$0.80 cents per MMBtu.

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¹ PG&E does use the PG&E Expansion for its system to satisfy operational requirements. Since it is currently considered an incremental pipeline, the PG&E Expansion line is not included in customer rates. This may change once the Gas Accord is adopted by the CPUC.